is obtained by a method comprising measuring a second plurality of cellular constituents in one or more cells for a plurality of drug therapies, and

(ii) calibrating said plurality of perturbation response profiles to clinical effects of the plurality of drug therapies,

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wherein said determined drug therapy where similarity is greatest is the drug therapy to achieve said desired clinical effect in said patient.

REMARKS

The subject application is a divisional application of application Serial No. 09/303,082 filed on April 30, 1999. Claims 54, 57-58 and 68 have been amended and new claims 69-84 have been added to more particularly point out and distinctly claim the invention. Upon entry of the instant amendment, claims 53-59, 67-84 will be pending. A marked up version of the claims showing the amendments is attached hereto as Exhibit A. A clean version of the pending claims, as amended, is attached hereto as Exhibit B.

Claims 54, 57 and 68 have been amended to more particularly point out that the claimed methods involve determining and minimizing the value of *a function* of the difference between said diagnostic profile and the perturbation response profile (emphasis added). Support for the amendments is found in the specification, e.g., at page 30, line 18 through page 31, line 7.

Claim 58 has been amended to more particularly point out that the claimed method involves determining and *maximizing* the value of a function of *the correlation between said diagnostic profile and the perturbation response profile* extracted from said perturbation response curves for a level of perturbation to said protein (emphasis added). Support for the amendment is found in the specification at page 31, lines 8-31. Claim 58 has also been amended to depend on claim 53.

Support for new claims 69-70 is found in the specification, *e.g.*, at page 36, line 1 through page 38, line 23; and at page 82, line 19 through page 83, line 29. Support for new claims 71-72 is found in the specification, *e.g.*, at page 36, line 1 through page 38, line 23; and at page 7, lines 5-27 and page 13, lines 24-30. Support for new claims 73-74 is found in the specification, *e.g.*, at page 36, line 1 through page 38, line 23; and at page 8, lines 10-34. Support for new claims 75-78 is found in the specification, *e.g.*, at page 36, line 1 through page 38, line 23; at page 9, lines 17-34; and at page 85, lines 8-20. Support for new claim 79

is found in the specification at page 37, lines 19-25 and page 39, lines 12-20; and at page 7, lines 5-27. Support for new claim 80 is found in the specification at page 37, lines 19-25 and page 39, lines 12-20; and at page 82, line 19 through page 83, line 29. Support for new claim 81 is found in the specification at page 37, lines 19-25 and page 39, lines 12-20; and at page 7, lines 5-27 and page 13, lines 24-30. Support for new claim 82 is found in the specification at page 37, lines 19-25 and page 39, lines 12-20; and at page 8, lines 10-34. Support for new claim 83-84 is found in the specification at page 37, lines 19-25 and page 39, lines 12-20; and at page 9, lines 17-34; and at page 85, lines 8-20.

No new matter has been added. Entry of the foregoing amendments and remarks is respectfully requested.

CONCLUSION

Applicants respectfully request entry of the foregoing amendments and remarks into the file of the above-identified application.

Respectfully submitted,

Date October 12, 2001

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Enclosures

EXHIBIT A: MARKED VERSION OF THE AMENDED CLAIMS
U.S. PATENT APPLICATION SERIAL NO. To be assigned
(ATTORNEY DOCKET NO. 9301-161)

(As amended October 12, 2001)

54. (Amended) The computer system of claim 53 wherein determining the level of perturbation is achieved by a method comprising:

(a) determining the value of [an objective] a function of the difference between said diagnostic profile and the perturbation response profile extracted from said perturbation response curves for a level of perturbation to said protein; and

(b) minimizing said determined value of said [objective] function by varying the level of perturbation to said protein to determine a level of perturbation that minimizes said determined value of said [objective] function.

57. (Amended) The computer system of claim 54 wherein said [objective] function comprises a sum of the squares of differences of the diagnostic profile and the perturbation response profile extracted from said perturbation response curves.

58. (Amended) The computer system of claim [54] 53 [wherein said objective function comprises the negative of the correlation of the diagnostic profile and the perturbation response profile extracted from said perturbation response curves] wherein determining the level of perturbation is achieved by a method comprising:

(a) determining the value of a function of the correlation between said diagnostic profile and the perturbation response profile extracted from said perturbation response curves for a level of perturbation to said protein; and

(b) maximizing said determined value of said function by varying the level of perturbation to said protein to determine a level of perturbation that maximizes said determined value of said function.

68. (Amended) The computer system of claim 67 wherein said determining the level of perturbation is achieved by a method comprising:

(a) determining the value of [an objective] a function of the difference between said diagnostic profile and the combination of the perturbation response profiles

extracted from said perturbation response curves for said level of perturbation to each said protein; and

(b) minimizing said determined value of said [objective] function by varying the level of perturbation to each said protein to determine the level of perturbation to each said protein that minimizes said determined value of said [objective] function.

New claims 69-84 have been added.